REMARKS

The Applicants request reconsideration of the rejection.

Claims 1-3 and 5-21 are now pending, including new claims 8-21.

The Applicants request the Examiner to acknowledge the claim for foreign priority and receipt of the certified copy on November 20, 2003. Priority is claimed to Japanese Patent Application No. 2002-337352, filed November 21, 2002, as indicated in the Declaration.

Claims 3 and 4 stand rejected under 35 U.S.C. §112, second paragraph, for the reasons set forth on page 2 of the Office Action. Although the Applicants believe that these dependent claims were definite as filed, in view of the recitation in original claim 1 defining the liquid surface estimation mechanism, the Applicants note that claim 4 has been canceled, and the language deemed unclear by the Examiner has been deleted from claim 3. Further, claim 1 has been amended to remove the reference to the time sequential changes.

Claims 1-2 and 4 stand rejected under 35 U.S.C. §102(b) as being anticipated by Koeda, U.S. Patent No. 5,319,954 (Koeda). Claims 3 and 5-7 stand rejected under 35 U.S.C. §103(a) as being obvious over Koeda. The Applicants traverse as follows.

As amended, claim 1 is directed to an automatic analyzer having a reagent vessel for containing a reagent, a pipette probe having a liquid surface detection function, a reaction vessel for containing a reagent dispensed from the pipette probe, an analysis mechanism for measuring a reaction between a reagent and a sample in the reaction vessel, a storage means for memorizing liquid surface position information acquired by the liquid surface detection function, a liquid surface

estimation mechanism for estimating the current liquid surface height derived from an approximate formula curve based on liquid surface height changes that occur during a period of the first several tens of tests for analysis, and a controller for controlling a dispensing operation of the pipette probe in accordance with the result of liquid surface estimation by the liquid surface estimation mechanism.

The Applicants refer the Examiner to the description between page 10, line 12 and page 12, line 6 for an example of support for the amendments to claim 1.

On page 3 of the Office Action, the Examiner suggests that Koeda teaches that if a liquid surface detecting position is too low compared with the position detected previously, a bubble is judged, thus meeting the claimed liquid surface estimation mechanism. However, as disclosed in col. 4, lines 25-30 of the patent, Koeda has a memory that stores the position of the liquid surface obtained by a previous measurement, and when the position of the liquid surface is compared with the present position, any difference is judged as to be within a specified range and, if within the specified range, the difference is judged normal. On the other hand, if the difference is judged to be outside the specified range, it is judged to be a bubble and an alarm is issued. Thus, Koeda discloses a rather simple means for detecting bubbles.

On the other hand, claim 1 recites a liquid surface estimation mechanism that estimates the current liquid surface height using a technique that is better designed to detect accurately the presence of true liquid surface height changes. As recited in claim 1, the liquid surface estimation mechanism estimates the current liquid surface height derived from an approximate formula curve based on liquid surface height changes that occur during a period of the first several tens of tests for analysis (as

amended). This technique is to be more accurate than any other technique that incorporates an excessive number of tests which are more likely to result in bubble formation. In any event, Koeda does not disclose or fairly suggest that the first several tens of tests for analysis define the period during which liquid surface height changes are used to form an approximate formula curve, for the purpose of estimating the current liquid surface height.

The remaining dependent claims add separately patentable features which will not be discussed at this time for brevity. However, the Applicants assert all rights in the entire scope of invention as claimed.

In view of the foregoing amendments and remarks, the Applicants request reconsideration of the rejection and allowance of the claims.

To the extent necessary, the Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Mattingly, Stanger, Malur & Brundidge, P.C., Deposit Account No. 50-1417 (referencing attorney docket no. H-1120).

Respectfully submitted,

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